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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,764	08/15/2001	Eugene Lee	3981-16	2391

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HAYNES AND BOONE, LLP  
901 MAIN STREET, SUITE 3100  
DALLAS, TX 75202

EXAMINER

HARPER, KEVIN C

ART UNIT PAPER NUMBER

2616

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/930,764	<b>Applicant(s)</b> LEE ET AL.	
	<b>Examiner</b> Kevin C. Harper	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3,5-16,18,21 and 22 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,12-14 and 16 is/are allowed.
- 6) ☒ Claim(s) 5,6,8-11,15,18,21 and 22 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Arguments***

Applicant's arguments filed July 24, 2006 with respect to the rejection of claim 9 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of Hegde in view of Chao. The indicated allowability of claim 10 is withdrawn on further consideration of Hegde in view of Chao.

Applicant's remaining arguments filed July 24, 2006 have been fully considered but they are not persuasive.

1. Applicant argued that Hegde does not disclose a bandwidth tracker that prevents an input port from connecting to an output port when the bandwidth is used up. However, the credit value is based on previously unfulfilled requests where requested bandwidth was not entirely allocated (col. 6, lines 15-20; col. 3, lines 42-46). Therefore, Hegde discloses a bandwidth tracker for preventing data transmission when bandwidth is used up. Applicant additionally argued that Hegde does not disclose preventing additional requests when the bandwidth is used up. Examiner agrees with applicant concerning the additional requests and claims 7 and 12 have been previously indicated as having allowable subject matter.

2. Applicant argued that Chao does not disclose multiple rate controllers. However, the VOQ arbiters of Chao limit the data rate of the connections based on input-output connections (col. 12, lines 39-46; col. 15, lines 3-9; col. 16, lines 6-11). The round-robin arbiters allow only one connection to transmit during a cell time and therefore limit the bandwidth of the input-output connections because they must share and contend for bandwidth of the system (col. 9, lines 24-34).

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 5 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Hegde et al. (US 6,810,031).

3. Regarding claims 5 and 15, Hegde discloses a data rate controller (fig. 2, item 108; fig. 3, item 108; col. 6, lines 51-57) for controlling a rate that data is transferred over a backplane (fig. 1, item 110 in a network processing device (fig. 1). The data rate controller comprises a bandwidth allocator to allocate bandwidth to an input port (col. 7, lines 1-3, 43-47 and 66-67), a bandwidth limiter to identify a maximum allowable bandwidth for an input port (col. 7, lines 48-55), and a bandwidth tracker to identify an allocated bandwidth and to prevent the input port from connecting to the output port when the bandwidth is used up (col. 7, line 66 through col. 8, line 5; col. 6, lines 15-20). The bandwidth tracker is disabled from counting up when the maximum allowable bandwidth has been reached (col. 7, lines 55-57). Further regarding claim 15, the bandwidth is assigned based on a bandwidth allocation to time slot period ratio (figs. 4-7; col. 6, lines 55-58).

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 6, 8-11, 18 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hegde et al. (US 6,810,031) in view of Chao et al. (US 6,449,283).

4. Regarding claims 6, 8 and 18, Hegde discloses a data rate controller as described in the rejection of claims 5 and 15 above. However, Hegde does not disclose multiple rate controllers assigned to each input-output port combination in the network processing device.

5. Chao discloses multiple rate controllers (fig. 11, input arbiters; col. 12, lines 39-46) assigned to each input-output port combination (fig. 11, VOQ) that control the rate at which data is received by the output ports (fig. 11; col. 12, lines 41-42; col. 16, lines 26-29). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have multiple rate controllers in the invention of Hegde in order to provide a rate control for a port (Chao, col. 16, lines 26-32 and 45-47).

6. Regarding claims 9-10, Hegde in view of Chao does not specifically disclose using the weight of the ports when two or more ports have the same priority. However, in Chao ports are chosen using a round-robin scheme when they have the same priority (col. 31, lines 26-49 and 51-60). Although, Chao discloses techniques using weighing for contention (col. 8, lines 56-62). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to weight ports for bandwidth contention in the invention of Hegde in view of Chao in order to provide greater transmission favor for certain ports as is known in the art (Chao, col. 8 lines 56-62).

7. Regarding claims 11 and 21-22, the limitations of these claims have been addressed in the rejection of claims 15 and 18 above.

***Allowable Subject Matter***

8. Claims 3, 12-14 and 16 are allowed.

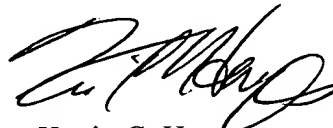
9. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:00 AM to 7:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To, can be reached at 571-272-7629. The centralized fax number for the Patent Office is 571-273-8300. For non-official communications, the examiner's personal fax number is 571-273-3166 and the examiner's e-mail address is kevin.harper@uspto.gov.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications associated with a customer number is available through Private PAIR only. For more information about the PAIR system, see portal.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin C. Harper

September 26, 2006